FIG. 1

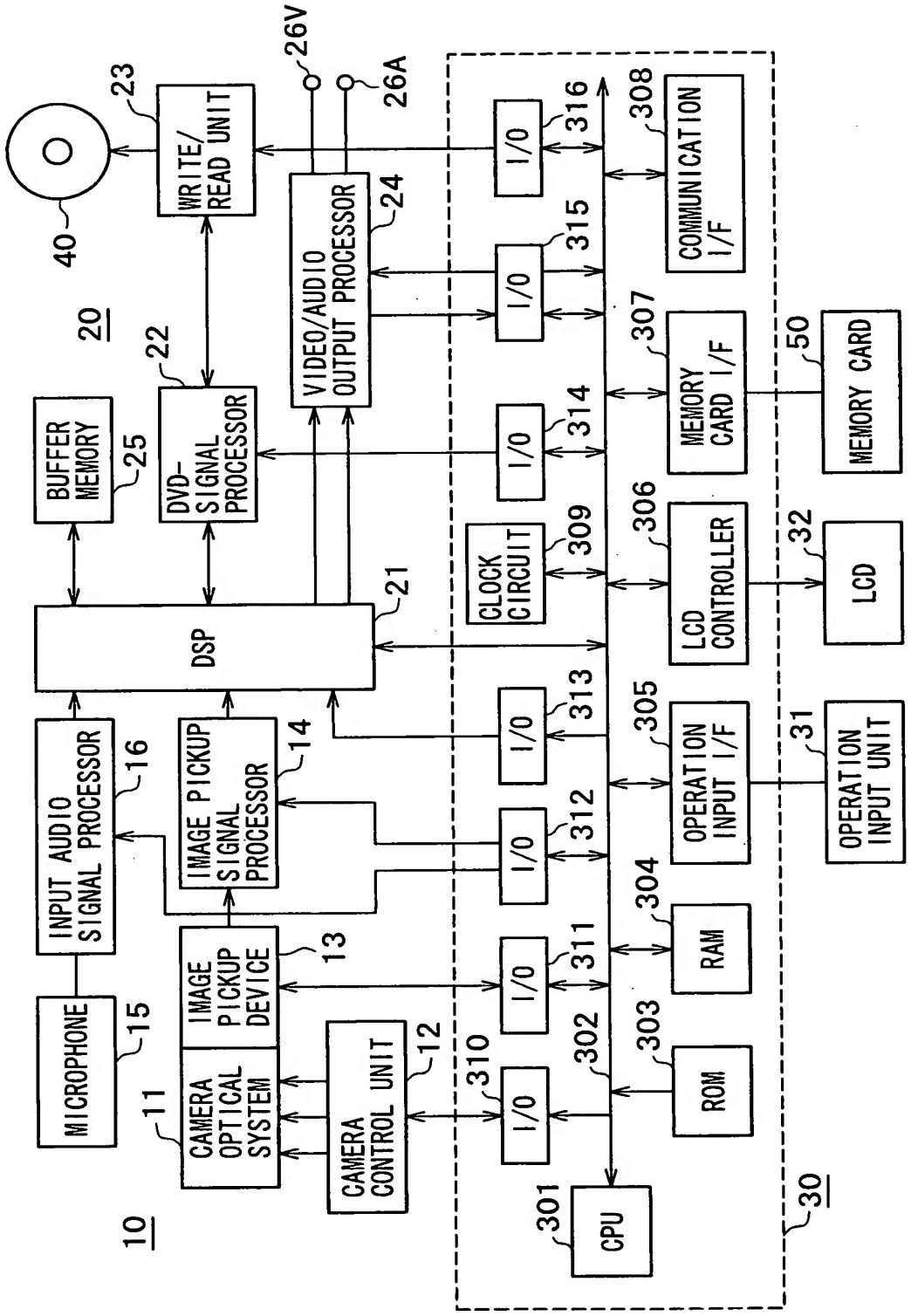
10
20
30
40
MICROPHONE
15
INPUT AUDIO SIGNAL PROCESSOR
16
CAMERA OPTICAL SYSTEM
11
IMAGE PICKUP DEVICE
13
IMAGE PICKUP SIGNAL PROCESSOR
14
CAMERA CONTROL UNIT
12
WRITE/READ UNIT
23
BUFFER MEMORY
25
DVD-SIGNAL PROCESSOR
22
DSP
21
VIDEO/AUDIO OUTPUT PROCESSOR
24
26V
26A
CPU
301
ROM
303
RAM
304
CLOCK CIRCUIT
309
I/O
310
I/O
302
I/O
311
I/O
312
I/O
313
I/O
314
I/O
315
I/O
316
OPERATION INPUT I/F
305
LCD CONTROLLER
306
MEMORY CARD I/F
307
COMMUNICATION I/F
308
OPERATION INPUT UNIT
31
LCD
32
MEMORY CARD
50

FIG. 2

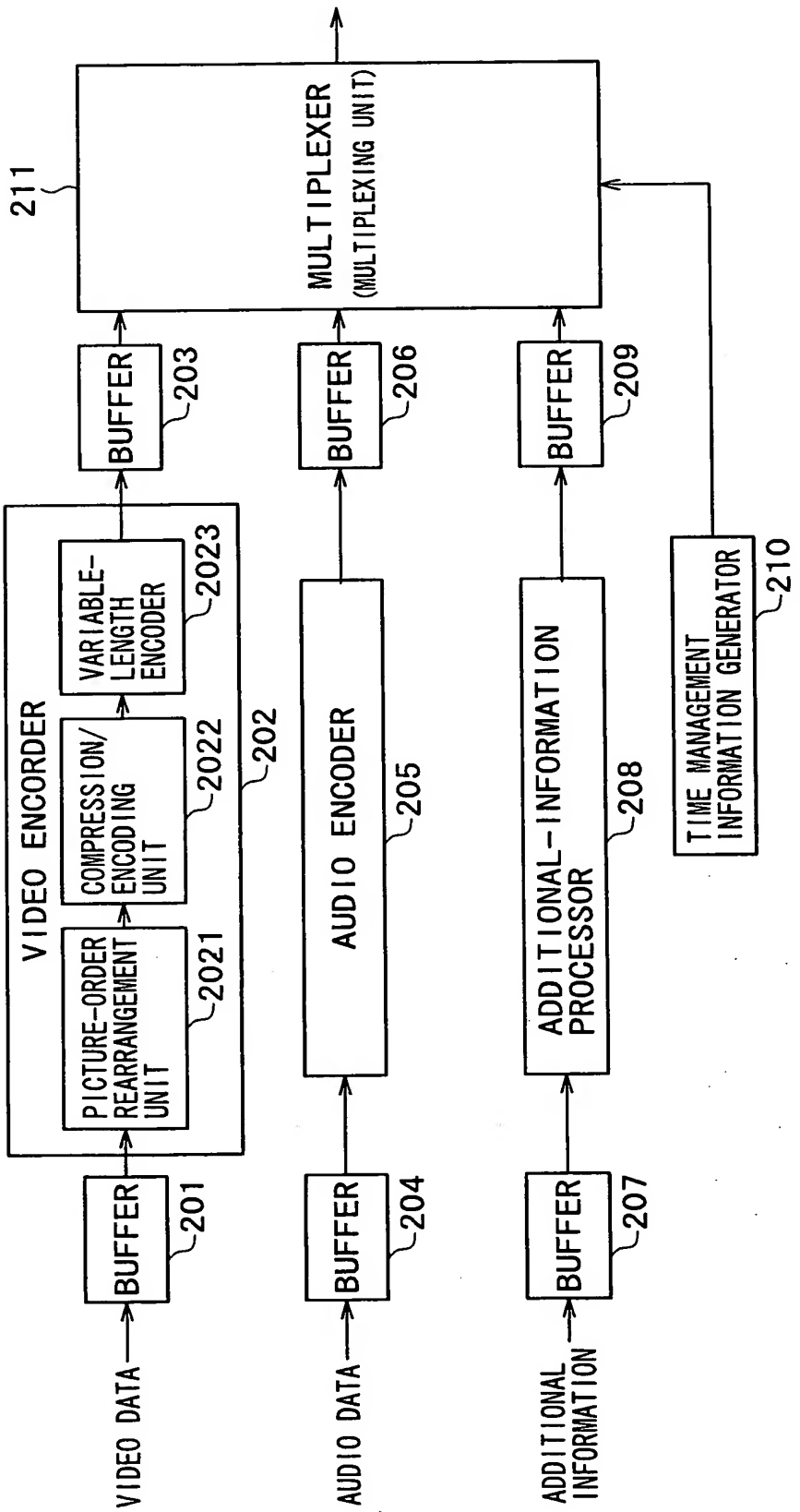
MULTIPLEXER
(MULTIPLEXING UNIT)
211
BUFFER
203
BUFFER
206
BUFFER
209
VIDEO ENCORDER
VARIABLE-LENGTH ENCODER
2023
COMPRESSION/ ENCODING UNIT
2022
PICTURE-ORDER REARRANGEMENT UNIT
2021
202
AUDIO ENCODER
205
ADDITIONAL-INFORMATION PROCESSOR
208
TIME MANAGEMENT INFORMATION GENERATOR
210
BUFFER
201
BUFFER
204
BUFFER
207
VIDEO DATA
AUDIO DATA
ADDITIONAL INFORMATION

FIG. 3

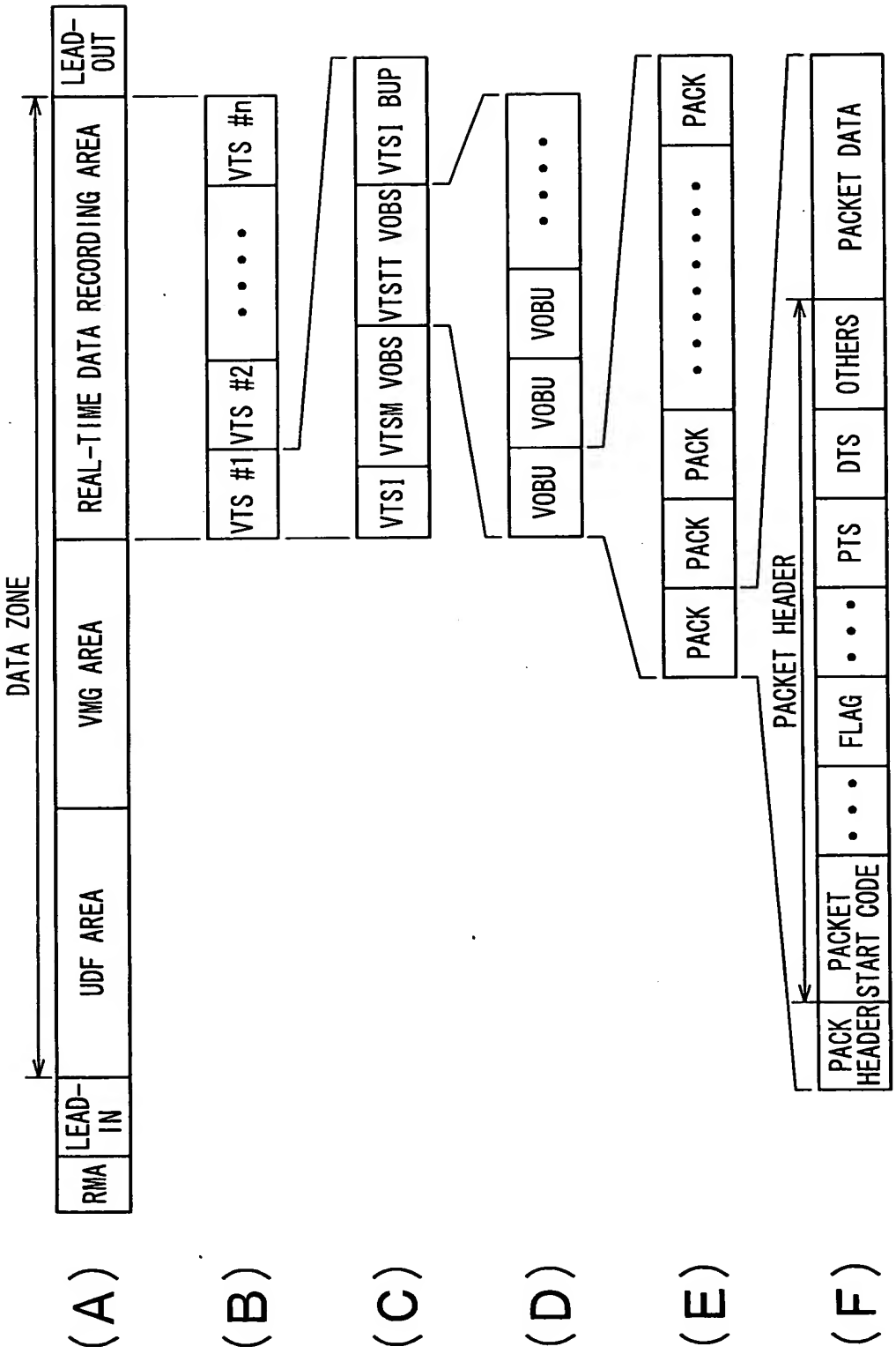
(A)
RMA
LEAD-IN
UDF AREA
VMG AREA
REAL-TIME DATA RECORDING AREA
LEAD-OUT
DATA ZONE
(B)
VTS #1
VTS #2
• • • •
VTS #n
(C)
VTS1
VTSM VOBS
VTSTT VOBS
VTS1 BUP
(D)
VOBU
VOBU
VOBU
• • • •
(E)
PACK
PACK
PACK
PACK
• • • • • • • • •
(F)
PACK HEADER
PACKET START CODE
• • •
FLAG
• • •
PTS
DTS
OTHERS
PACKET DATA
PACKET HEADER

FIG. 4

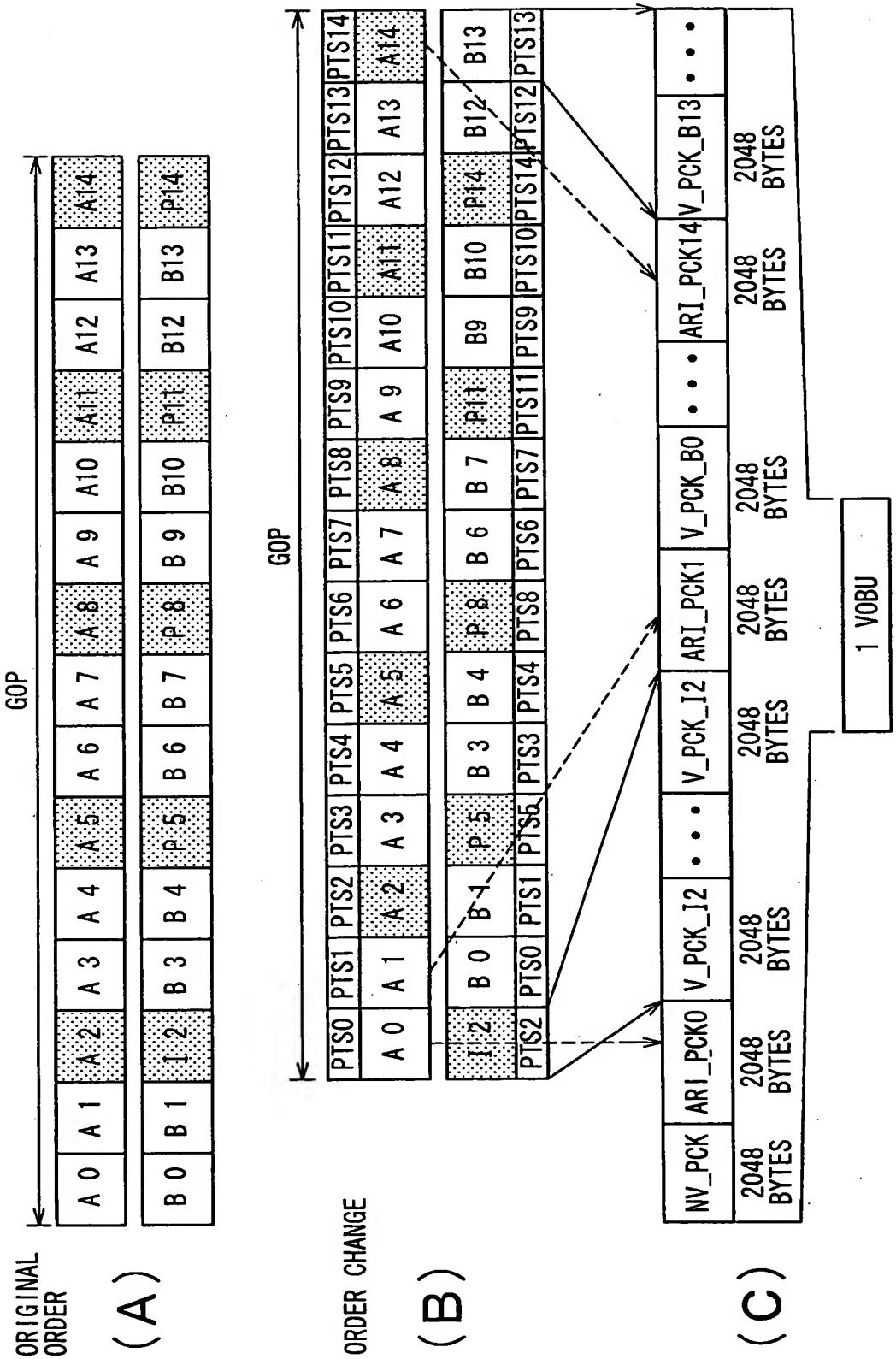
ORIGINAL ORDER
(A)
GOP
A 0
A 1
A 2
A 3
A 4
A 5
A 6
A 7
A 8
A 9
A10
A11
A12
A13
A14
B 0
B 1
I 2
B 3
B 4
P 5
B 6
B 7
P 8
B 9
B10
P11
B12
B13
P14
ORDER CHANGE
(B)
GOP
PTS0
PTS1
PTS2
PTS3
PTS4
PTS5
PTS6
PTS7
PTS8
PTS9
PTS10
PTS11
PTS12
PTS13
PTS14
(C)
NV_PCK
ARI_PCK0
V_PCK_I2
ARI_PCK1
V_PCK_B0
ARI_PCK14
V_PCK_B13
2048 BYTES
1 VOBU

FIG. 5

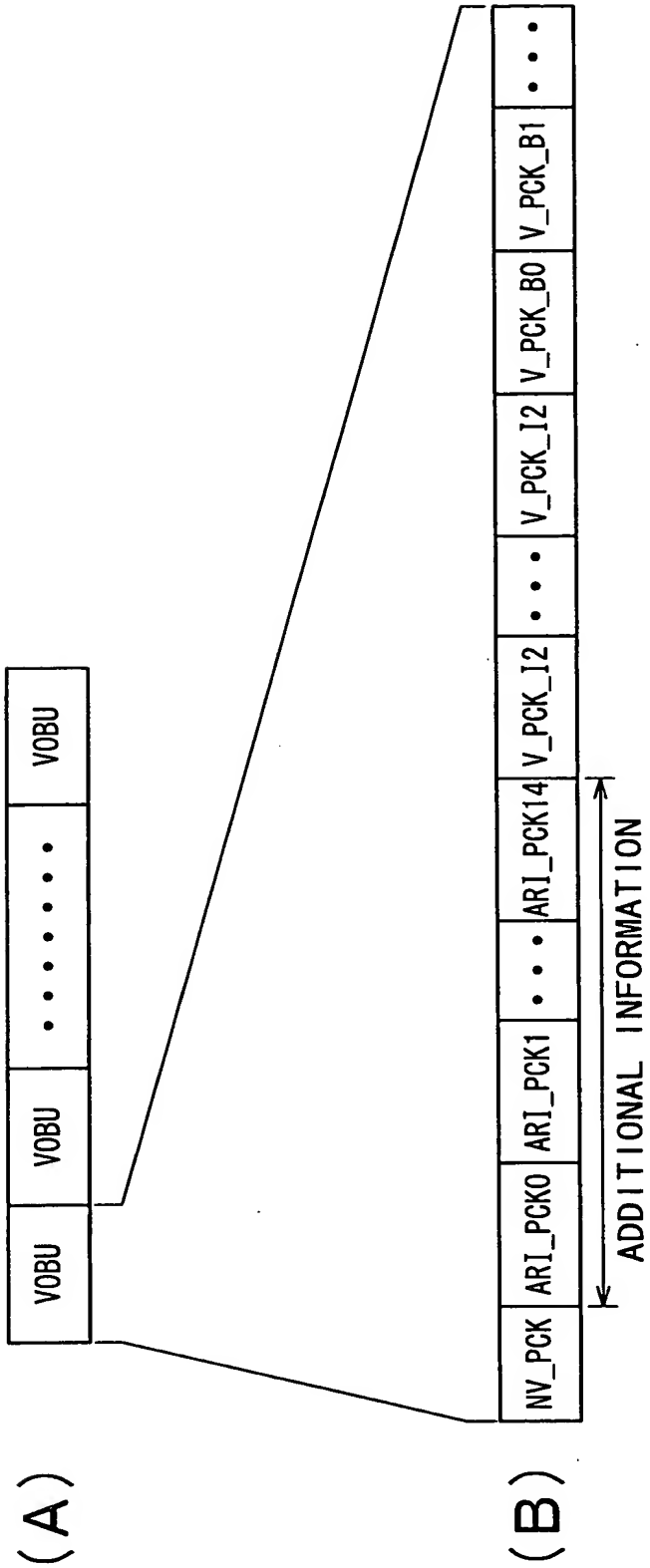
(A)
VOBU
VOBU
VOBU
(B)
NV_PCK
ARI_PCK0
ARI_PCK1
ARI_PCK14
V_PCK_I2
V_PCK_I2
V_PCK_B0
V_PCK_B1
ADDITIONAL INFORMATION

FIG. 6

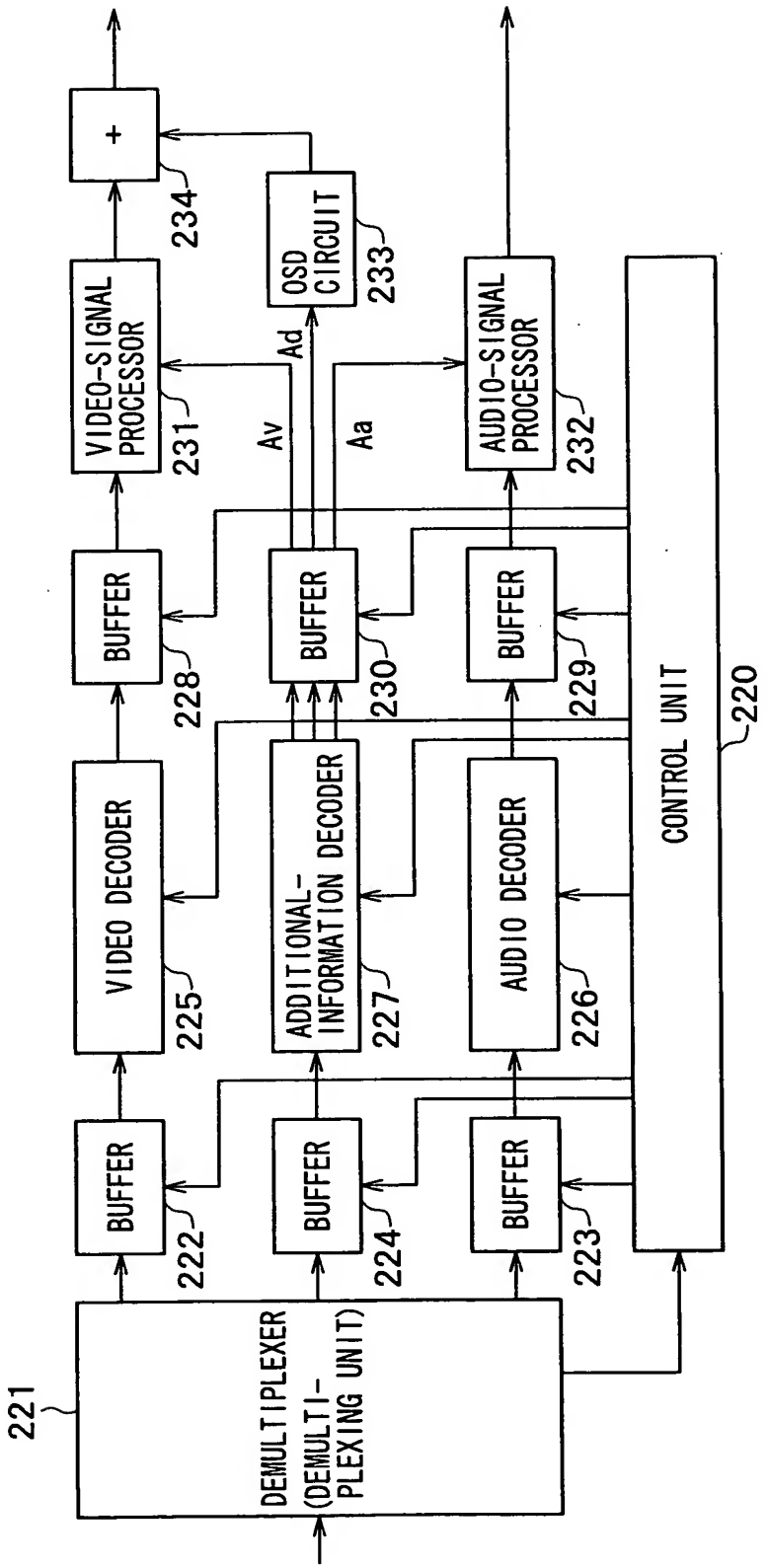
221
DEMULTIPLEXER (DEMULTI-PLEXING UNIT)
222
BUFFER
224
BUFFER
223
BUFFER
225
VIDEO DECODER
227
ADDITIONAL-INFORMATION DECODER
226
AUDIO DECODER
228
BUFFER
230
BUFFER
229
BUFFER
231
VIDEO-SIGNAL PROCESSOR
Av
Ad
Aa
233
OSD CIRCUIT
232
AUDIO-SIGNAL PROCESSOR
234
+
220
CONTROL UNIT

FIG. 7

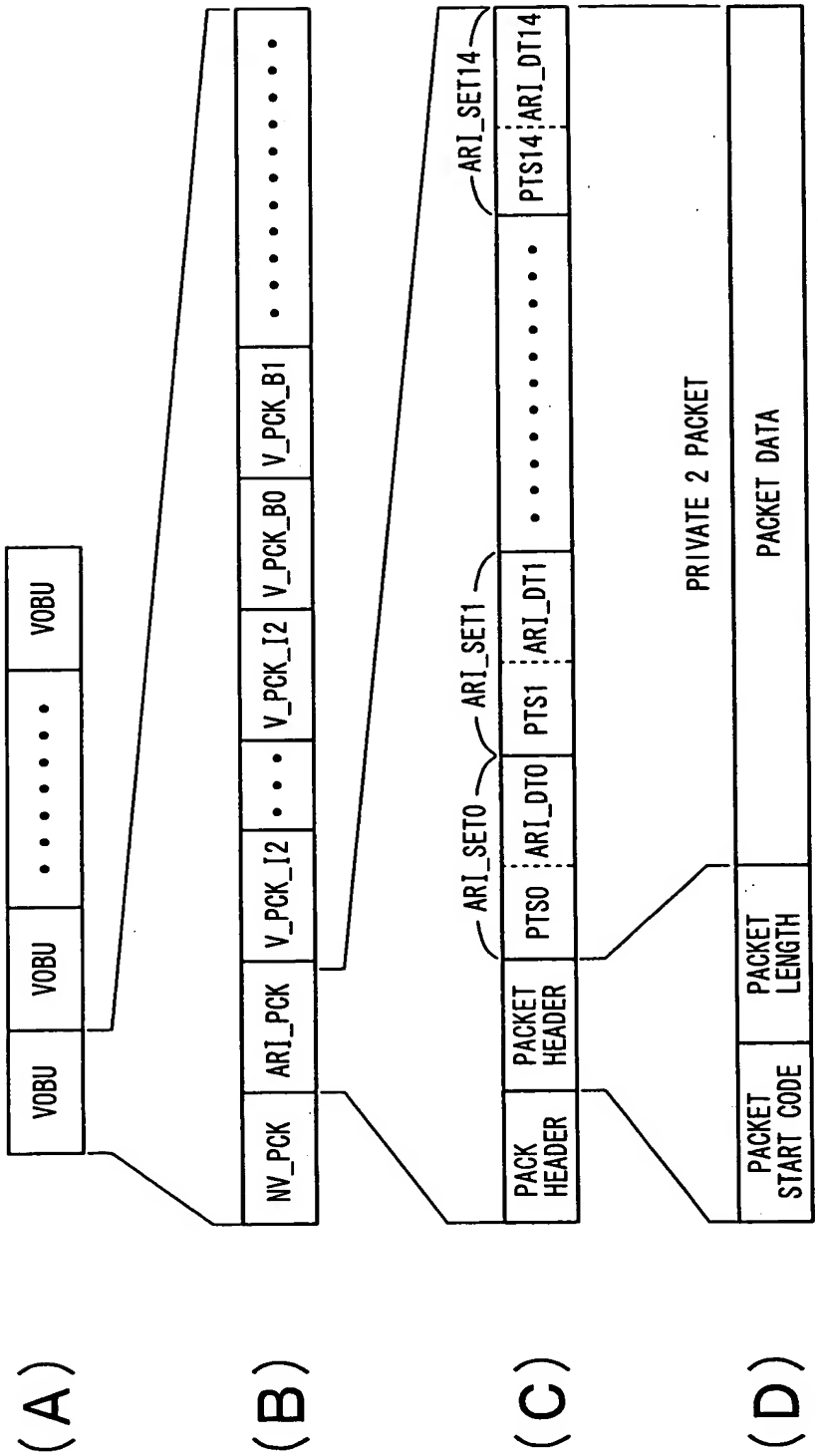
(A)
VOBU
VOBU
VOBU
(B)
NV_PCK
ARI_PCK
V_PCK_I2
V_PCK_I2
V_PCK_B0
V_PCK_B1
(C)
PACK HEADER
PACKET HEADER
PTS0
ARI_DT0
ARI_SET0
PTS1
ARI_DT1
ARI_SET1
PTS14
ARI_DT14
ARI_SET14
(D)
PACK START CODE
PACKET LENGTH
PACKET DATA
PRIVATE 2 PACKET

FIG. 8

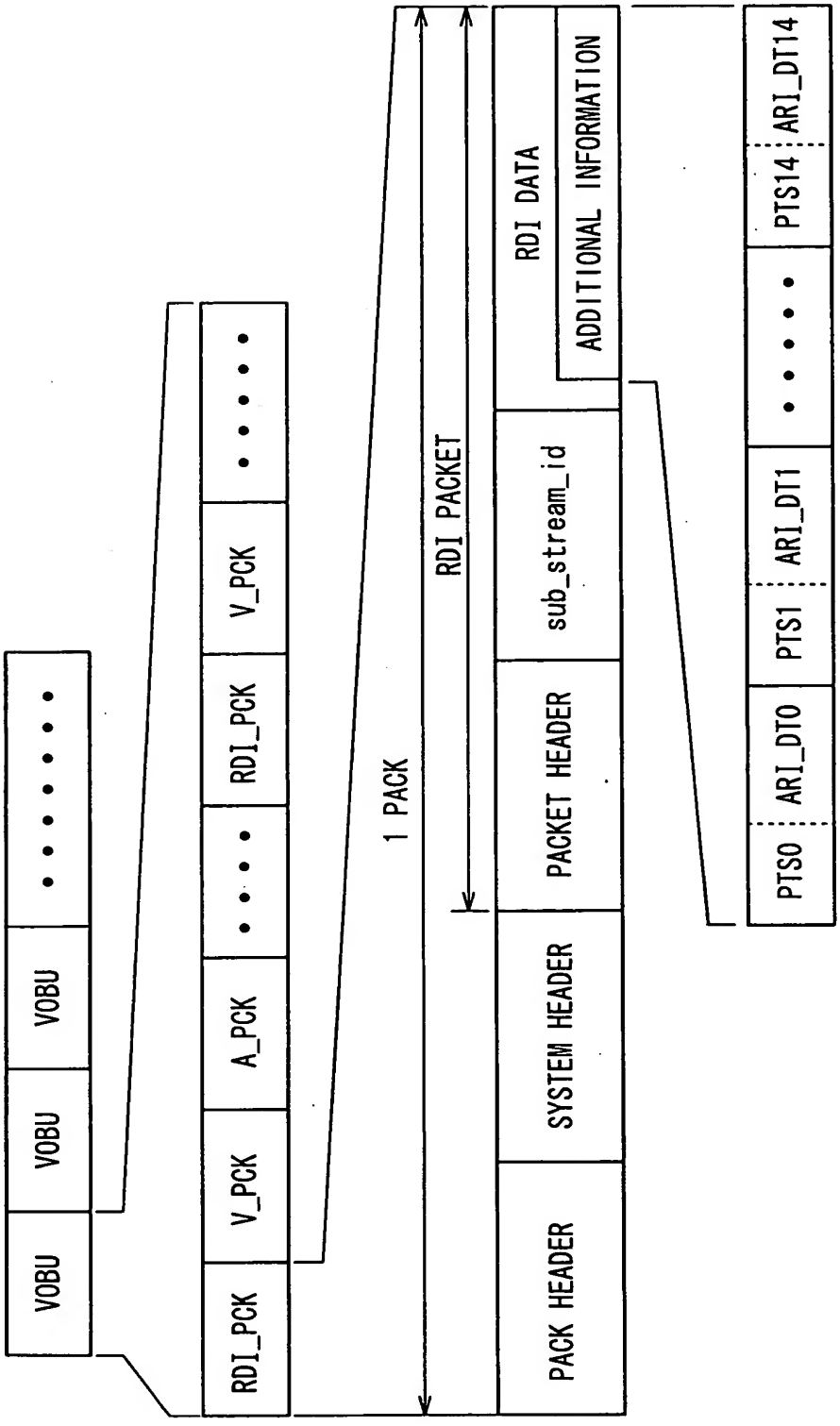
VOBU
VOBU
VOBU
• • • • • • •
RDI_PCK
V_PCK
A_PCK
• • • •
RDI_PCK
V_PCK
• • • • •
1 PACK
RDI PACKET
PACK HEADER
SYSTEM HEADER
PACKET HEADER
sub_stream_id
RDI DATA
ADDITIONAL INFORMATION
PTS0
ARI_DT0
PTS1
ARI_DT1
• • • • •
PTS14
ARI_DT14

FIG. 9A INTER-FRAME PREDICTION STRUCTURE

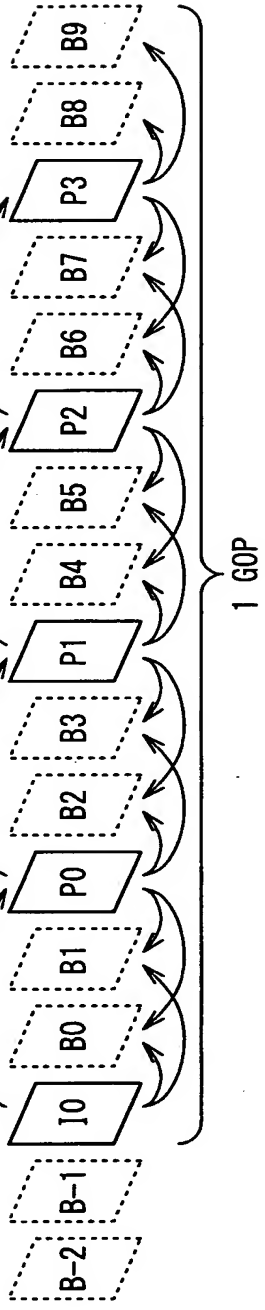
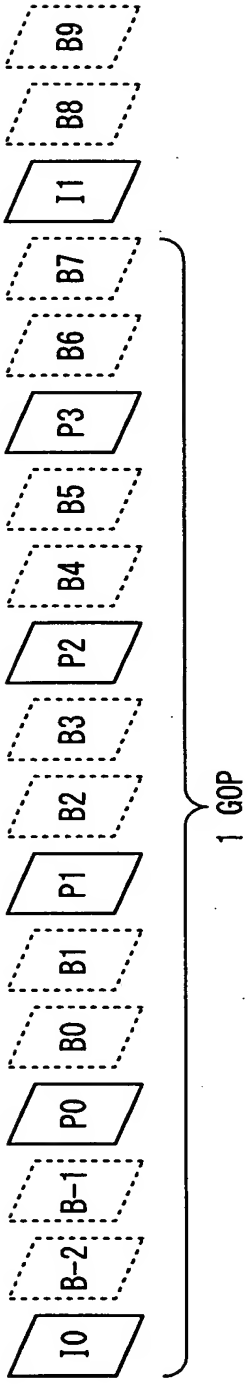
FIG. 9B RECORDED-FRAME STRUCTURE